Virginia DEQ

RCRA Corrective Action Fact Sheet #1

Land Use Assumptions for RCRA Corrective Action Baseline Risk Assessments

Because VDEQ's goal is to close RCRA sites without the need for VDEQ's future involvement, the default future land use assumption for RCRA Corrective Action risk assessments is residential use. Facilities should be encouraged to evaluate residential use in order to minimize the extent of land use controls. However, VDEQ recognizes that in many cases the assumption of residential use is not reasonable based on the probability of continued industrial use into the foreseeable future.

The EPA Region 3 RCRA Facility Investigation Scope of Work (http://www.epa.gov/reg3wcmd/ca/ca_resources.htm#risk) requires that a baseline risk assessment be performed to determine whether remedial action is needed. The baseline risk assessment must consider both current and reasonably anticipated future land use scenarios. If the facility wishes to assume a land use scenario other than residential, the facility should submit to VDEQ an evaluation of potential future land use to provide a basis for the land use assumptions in the baseline risk assessment. This evaluation should include the following considerations:

a. A description of need and justification for the proposed use of the site. An explanation of the situation which prevents the facility from achieving unrestricted use. A table showing the comparison of soil concentrations to residential risk-based screening levels, SSLs and site-specific background levels should be included.

b. Duration of the proposed use of the site.

c. Whether or not the site is zoned or has been otherwise officially designated for industrial use; Supporting documentation such as ordnances, master plans and zoning maps should be included.

d. Whether or not the site is currently used for industrial purpose or has a history of use for industrial purposes;

e. Whether or not adjacent properties are currently used or designated for industrial use;

f. Whether or not the site is expected to be used for industrial purposes for the foreseeable future due to a) zoning, b) statutory or regulatory restrictions, c) adjacent land use, and/or d) other factors; Local land use planning authorities should be contacted to discuss the local master plan, residential encroachment issues, and any environmental justice issues associated with the site.

g. Cultural or historical factors relating to the site or adjacent properties.

h. Other information believed by the facility to pertinent;

i. The intent and capability of the owner to place a land use control (LUC) on the property and the ability to maintain the LUC should the property be transferred. Note that a residential use restriction also prohibits the use of the property for children's (under the age of 16) day care facilities, schools, play areas, or any other activities that may result in potential exposure of children to the contaminants. A map or figure showing the anticipated extent of the LUC should be provided.

j. The intent and capability of the owner to accept a mechanism to enforce the land use control such as a post closure permit, an administrative order and/or an Environmental Covenant, including the costs associated with maintaining the land use control.

VDEQ recommends that the above evaluation be submitted to VDEQ prior to the preparation of the baseline risk assessment so that agreement can be reached on the land use assumptions. If VDEQ agrees that the reasonably foreseeable future land use is industrial, a full quantitative risk assessment for a residential scenario will not be required. However, as noted in bullet a. above, screening against residential screening levels will be required in order to demonstrate that unrestricted use is not practicable.

It should be noted that VDEQ's goal for groundwater in the Corrective Action program is to return contaminated groundwater to the highest beneficial use (drinking water). Therefore the risk assessment for industrial use assumption does not address the evaluation of groundwater on-site and off-site. In addition, note that the industrial use assumption for soils can only apply to property over which the facility owner has control. Therefore, this assumption will generally not apply to the assessment of off-site risk.

In addition to an assessment of risk for a standard industrial use scenario, the risk assessment for industrial Corrective Action sites must also contain an evaluation of the potential for migration of contamination from soil to groundwater and an evaluation of ecological risk. The fate and transport and/or ecological evaluations may at times lead to the development of soil clean-up levels below those driven by the industrial use assessment.